U.S. Army South Regulation 415–3

Construction

Base Camp Guidance for Latin America and the Caribbean

Headquarters
U.S. Army South
Fort Buchanan, Puerto Rico
June 2001

SUMMARY of CHANGE

USARSO Regulation 415-3
Base Camp Guidance for Latin America and the Caribbean

This revision–

- Deletes references and procedures that were applicable when USARSO was based in Panama.
- Provides additional force protection guidance and considerations in paragraphs 2-5, 2-6, and 2-7.
- Emphasizes base camp location, layout, and options (paragraphs 2-2, 2-3, 2-4, 2-6, and 2-7).

Department of the Army
Headquarters
United States Army South
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Base Camp Guidance for Latin America and the Caribbean

FOR THE COMMANDER:

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History Statement. This printing publishes a revision of United States (U.S.) Army South (USARSO) Reg 415-3.

Summary. This regulation provides policies and procedures regarding base camp design and construction in support of U.S. military engineer exercises conducted in Latin America and the Caribbean.

Applicability. This regulation applies to all U.S. Army active and reserve component troop construction in Latin America and the Caribbean.

Proponent and Exception Authority. The proponent for this regulation is the USARSO Deputy Chief of Staff for Engineers (DCSENG). The proponent has the authority to approve exceptions to this publication that are consistent with controlling law and regulations.

Supplementation. Supplementation of this regulation is prohibited unless specifically approved by the proponent.

Suggested Improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Commander, ATTN: SOEN-ED, PO Box 34000, Ft. Buchanan, PR 00934-3400.

Distribution. Distribution of this publication is made in accordance with USARSO Pam 25-50, Command Distribution Scheme, and is intended for USARSO A1; B1; C1; D1; SOEN-ED – 5; SOIM-IT-RP – 2; AFSA-PS-HHD (MDC) – 5; AFSA-PS-HHD (PUBS) – 5; and the USARSO Intranet.

Contents (Listed by paragraph number.)

*This regulation supercedes USARSO Regulation 415-3, March 1994.

Chapter 1
Introduction

1–1. Purpose
The purpose of this regulation is to provide theater guidance for the development of base camps in support of military engineer training exercises in Latin America and the Caribbean.

1–2. References
Required and related publications are listed in appendix A.

1–3. Explanation of abbreviations and terms
Abbreviations and terms used in this regulation are explained in the glossary.

1–4. Scope
This regulation applies to all Army engineer exercises in Latin America and the Caribbean, to include deployments for training (DFT's), overseas deployments for training (ODT's), and Joint Chiefs of Staff (JCS) directed training exercises where base camp construction is required.

1–5. Definitions
For simplification, the Army Facilities Components System (AFCS) construction standards have been modified for this theater as follows:

a. Tactical. Identified as camps using only Modified Table of Organization and Equipment (MTO&E) and Common Table of Allowances (CTA) equipment without constructed improvements. This standard covers exercises of four weeks duration or less.

b. Initial. Identified as camps using MTO&E and CTA equipment with limited constructed improvements such as tent pads, prime power, limited plumbing (consisting of a small laundry area, showers, and potable water lines) and a wood-frame mess facility. This standard covers exercises from four weeks to seven months in duration.

c. Temporary. Identified as camps consisting of wood-frame structures. This standard applies to exercises of seven months to two years in duration.

d. Permanent. This standard is not applicable to engineer training exercises conducted in the United States Southern Command (USSOUTHCOM) Area of Responsibility (AOR).

1–6. Training standards
The constructing unit's Army Training and Evaluation Program (ARTEP) is the standard that will apply in the design and construction of exercise base camps.

1–7. Responsibilities
a. The USARSO DCSENG will:

(1) Review and approve the Task Force (TF) base camp design.

(2) Be responsible for the quality assurance of camp design and construction.

b. The USARSO Deputy Chief of Staff for Operations (DCSOPS) will:

(1) Assist in selecting base camp location.

(2) Coordinate land use.

(3) Review base camp design for operational functionality.

(4) Coordinate security requirements with the USARSO Force Protection Cell.

c. The TF will be responsible for:

(1) Base camp design

(2) Base camp construction quality control

(3) Base camp operations and maintenance

Chapter 2
Base Camp Planning

2–1. Base camp components
Base camps will generally be designed to provide logistical and administrative support for exercises and have some or all of the following major components:

a. Headquarters/tactical operations center (TOC) compound, enclosed by concertina perimeter wire with a guard shack at the entrance. General Purpose (GP) medium tents provide space for the work area.

b. Troop unit/living area(s) consisting of orderly rooms, sleeping tents, supply rooms, staff and administration tents, latrines, showers, shaving stands, dispensary, chapel, limited morale, welfare, and recreation (MWR) and recreational facilities. GP medium tents are used to provide work and living facilities.

c. Mess area with a wood-frame mess facility (serving/preparation and dining area), refrigerator vans, dry goods storage tents (GP med w/floor), hand washing facilities, and water supply trailer/system. Mobile kitchen trailers (MKT) can be used as an option.

d. Logistics support area (LSA) with security fencing, security lighting, administration tent, bulk fuel storage and issue facility, package Class III storage area, both open and covered storage areas, an ammunition supply point (ASP), and a power generation area with noise control.

e. Motor park and maintenance area with maintenance tents having gravel flooring, maintenance administration tents, part storage van(s)/area, tire repair shop, welding shop, fuel point, waste oil storage area, and vehicle park.

f. Aviation operations area with helipads, maintenance tents with gravel floors, refueling area, aviation fuel storage area, and air operation tents.

g. Communications remote area with security wire and lighting.

h. Sanitary disposal area, human waste burning area(s), and/or trash burn pit/land fill (if method is acceptable to the Host Nation). If not environmentally acceptable, then contract disposal or filtration options.

i. Water production (well and/or purification point) and storage area with security fencing and lights.

2–2. Location
The base camp should be strategically located to service all project locations with no more than an hour drive to each. Ideally, for safety and security reasons, the camp should be located away from major metropolitan areas. As practical as possible, the campsite should be located within close proximity to a water source (stream or river) to facilitate reverse osmosis water purification unit (ROWPU) operations. Flood zones should be avoided.

2–3. Accessibility
The base camp should be easily accessible from main supply routes (MSRs) and permit easy entrance and exit of heavy engineering equipment.

2–4. Use of stand alone versus existing facilities
Utilization of existing facilities (i.e. host nation military compounds) should be considered if available.

a. Advantages to existing military facilities include:
(1) Lower construction costs
(2) Use of Exercise Related Construction (ERC) funds versus TF Operations and Maintenance (O&M) funds.
(3) Fixed facilities and military compounds provide –
(a) Water and electricity
(b) Hard stands
(c) Security

b. Disadvantages to the use of existing military facilities are:
(1) Higher costs if extensive renovations are required.
(2) Fixed facilities and military compounds tend to be located within or close to metropolitan areas.
(3) Coordination for joint occupancy may be required.
(4) Certain restrictions may apply as to use and duration.

2–5. Security
The minimum security requirements are triple standard concertina wire for fencing, security lights, and a guard shack within lighted entrance area. Guard towers, fighting positions and personnel bunkers may be required for working and living areas, depending upon the threat to U.S. personnel. The USARSO Deputy Chief of Staff, Provost Marshall (DCSPM) Force Protection Cell, may prescribe additional force protection measures, based on the threat situation. USARSO Engineer Exercise SOP, Appendix 14, “Force Protection”, to Annex C, Tab C, “Base Defense”, further discusses base camp security requirements. Additionally, the USARSO Force Protection Assessment conducted during the unit leader's reconnaissance will specifically address base camp security requirements and planning considerations.

2–6. Traffic control
Base camp entrance /exit signs will be posted in addition to the appropriate directional and speed limit signs. Parking control signs will be located at dismount points and approved parking locations. Separate entrances and exits should be considered to facilitate movement. Vehicle standoff zones of 150 feet should be established within the base camp in inhabited areas and near mission essential vulnerable areas. Ideally, there should be only one access control point that controls entry and exit to and from the base camp. A second point should be established for emergency use in areas that permit this design.

2–7. Layout considerations
The initial layout must be carefully thought out prior to beginning construction. Consider reducing vehicle traffic through living and dining areas. Anticipate extremes in weather conditions to include dust, rain runoff, and mud formations. Review locations of sleep tents in relation to latrine facilities; also the location of ROWPU and water locations. Storage areas, bill of materials (BOM) delivery, and maintenance areas and parking plans should all be located so they promote efficiency within the base camp.

a. Livability.

(*1*) Base camp organization should take into account the effects of local weather, especially conditions that may produce significant water runoff and strong prevailing winds. Camp layouts should be designed to minimize these problems.

(*2*) Space should be allocated for recreational activities. Sports fields, a recreation area, an area for TV/video viewing, and a reading area may be provided based upon the commander's guidance, the size of the duration staff and length of the exercise.

(*3*) Although communication with stateside families is a definite morale builder, commercial telephone collect call facilities will not be used. Instead, the use of Military Affiliate Radio System (MARS) and e-mail are recommended. Commanders must regulate all MWR calls to ensure that communication trunks are not being tied up.

b. Functionality. The camp should be laid out to facilitate mission accomplishment. Shower and latrine facilities should be conveniently located near living/sleeping areas. Separate facilities for male and females are required - this is not waiverable. Helicopter pads should be located as far away from living and work areas as possible. “Gray Water” management must be properly planned to prevent standing stagnant water.

c. Security. Perimeter clear zones should be located at least 150 feet from facilities to the perimeter fence in areas accessible by vehicles and 50 feet in non-vehicle accessible areas. Living areas and mission essential vulnerable areas should not be located near public access roads along the perimeter. The camp layout should facilitate the deployment of a ready reaction force or full perimeter occupation. Security procedures should be practiced during each rotation to ensure each individual understands his/her duties, and to ensure collective security tasks are performed to standards.

d. An example of a typical base camp layout can be found at Appendix B.

2–8. Design and funding
This paragraph briefly outlines general facilities construction standards and the BOM development process.

a. The base camp construction standard for Army run exercises in Latin America and the Caribbean will be the INITIAL standard as described in paragraph 1-4. The USARSO DCSENG must approve any variations from this standard.

b. Basic facility designs, as presented in TM 5-302, serve as the basis for base camp design. Units should use TM 5-303 to extract BOM for facilities to be constructed. The extracted and compiled BOM should then be adjusted to reflect pricing for the area or country in which purchases are to be made.

c. Exercise base camp costs are not to exceed the budgeted amount without prior approval of the USARSO DCSENG. Approval must be obtained prior to the commencement of any work that could cause the budget to be exceeded. Exceeding budget amounts without appropriate approval subjects violators, both military and civilian, to possible criminal and civil sanctions and potential personal liability for expenditures in excess of the budgeted costs.

d. The design package, consisting of camp layout, design drawings, BOM, the critical path method (CPM) network diagram, and the construction work schedule (CWS) will be submitted to the USARSO DCSENG for review and approval.

e. Exercise O&M funds are normally used for stand alone base camps. ERC can be used for the renovation or upgrade of existing facilities to be used for base camp purposes. Each situation is unique and certain limitations may apply. USARSO resource managers and legal advisors will provide guidance and advice on the use and limitations of approved funds.

Chapter 3
Construction Execution

3–1. General
This chapter outlines construction execution requirements and considerations.

3–2. Construction
a. The TF is responsible for constructing all base camp facilities to the standards and specifications approved in the base camp plan. Camp construction will be managed in accordance with USARSO Reg 415-1, Engineer Exercises in Latin America and the Caribbean. The quality control plan for camp construction will be in accordance with USARSO Reg 415-2, Construction Quality Management Program.

b. The DCSENG is responsible for monitoring construction activities and the execution of the unit's quality control plan.

c. The approved camp construction plan should be executed on schedule, according to the standards outlined in the construction specifications developed by the TF, and approved by the USARSO DCSENG. These standards will be followed during both design and construction phases. The project's CWS will include time for the quality control inspections planned by the task force and.be used to track compliance. l

d. Construction materials will be controlled and issued in support of definable elements of work in accordance with the CWS and the CPM construction network diagram. The USARSO Deputy Chief of Staff for Logistics (DCSLOG) and USARSO Staff Judge Advocate (SJA) will provide guidance for the disposition of excess materials at the conclusion of the exercise.

e. Only facilities on the TF base camp plan, as reviewed and approved by the DCSENG, will be constructed. Requests to construct facilities not previously approved will be forwarded through channels to the DCSENG for approval.

Appendix A
References

Section I
Required Publications

Technical Manual 5-302
Army Facilities Components System – Designs (Cited in para 2-8.)

Technical Manual 5-303
Army Facilities Components System - Logistics Data and Bills of Materials (Cited in para 2-8.)

USARSO REG 415–1
Engineer Exercises in Latin America and the Caribbean (Cited in paragraph 3-2.)

USARSO REG 415–2
Construction Quality Management Program (Cited in paragraph 3-2.)

USARSO Engineer Exercise SOP
(Cited in para 2-5.)

Section II
Related Publications
A related publication is a source of additional information. The user doesn't have to read it to understand this publication.

Technical Manual 5-301-2
Army Facilities Components System - Planning (Tropical)

Technical Manual 5-304
Army Facilities Components System User Guide Components System - Logistics Data and Bills of Materials

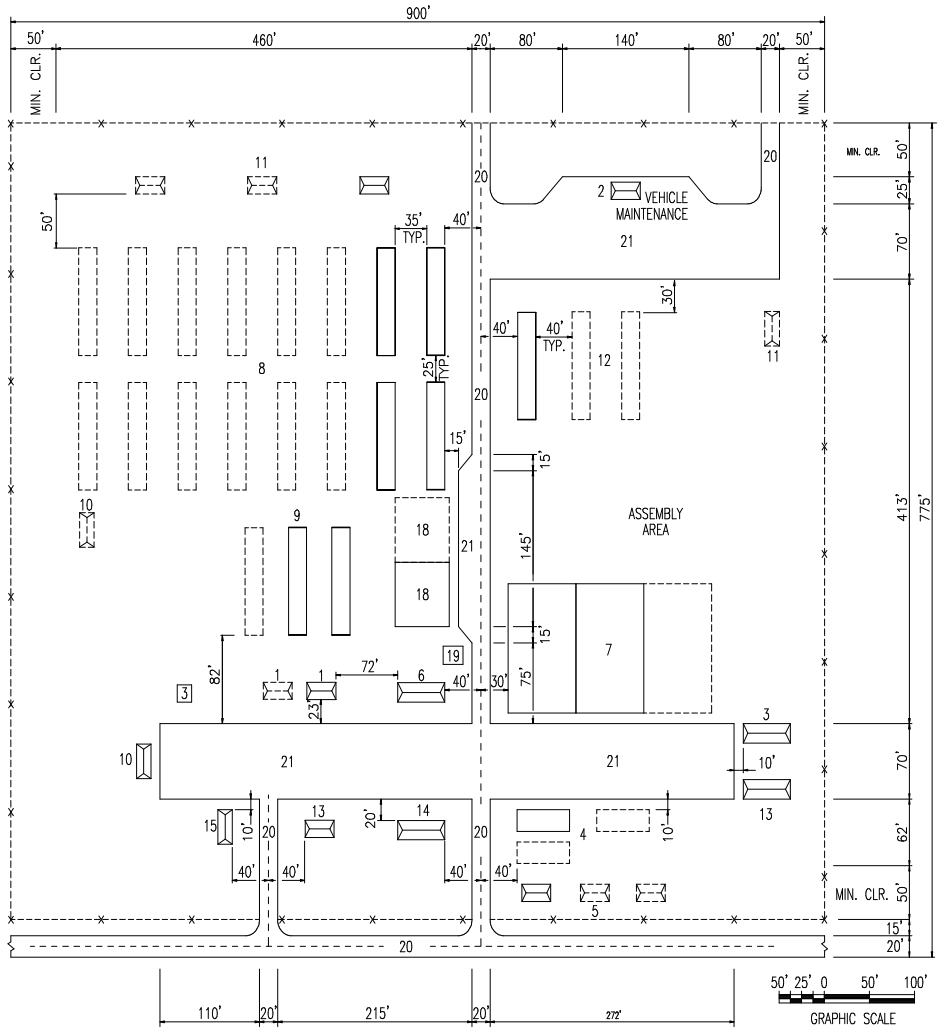
USARSO Supplement 1 to AR 525-13
Force Protection

Section III
Prescribed Forms
This section contains no entries.

Section IV
Referenced Forms

DA Form 2028
Recommended Changes to Publications and Blank Forms

Appendix B
Sample Base Camp Layout



NO.	FACILITY	SIZE/UNIT	FAC. NO.	REMARKS
1	ADMIN-HEADQUARTERS	600 SF	14185	
2	VEHICLE MAINTENANCE	2,400 SF	21410	NOTE 3
3	COLD STORAGE UNIT	65 CF	43190	
4	COVERED STORAGE THEATER	2,000 SF	44110	
5	COVERED STORAGE SHED	600 SF	44220	
6	BRIEFING/ASSEMBLY/WORSHIP	2,000 SF	44220	NOTE 3
7	OPEN STORAGE	1,000 SY	45210	
8	TROOP HOUSING-ENLISTED	2,000 SF	72111	12/TENT
9	TROOP DINING FACILITY	2,000 SF	72210	
10	LATRINE	600 SF	72321	
11	BATHHOUSE/LATRINE	600 SF	72324	
12	TROOP HOUSING-OFFICER	2,000 SF	72410	8/TENT
13	DISPENSARY/AID STATION	512 SF	72528	NOTE 3
14	SUPPLY/EXCHANGE	936 SF	72529	NOTE 3
15	ELECTRIC POWER	100 KW	81110	NOTE 2
16	SEWAGE TREATMENT	25,000 GD	83110	NOTE 3
17	WATER TREATMENT	60,000 GD	84110	NOTE 3
18	WATER STORAGE	10,500 GL	84120	
19	SUMP FOR FIRE PROTECTION	10,000 GL	84330	NOTE 3
20	ROADS	1 MILE	85100	
21	HARDSTAND	1,000 SY	85200	PARKING
22	REAL ESTATE	1 ACRE	87190	SITE CLEARING

INSTALLATION TABLE

GENERAL NOTES

1. COLD STORAGE 1,200 CF FACILITY (43191YA) TO BE DETERMINED BY THE INSTALLATION PLANNER.
2. A 16'X32 MEDIUM SIZE TENT MAY BE PROVIDED FOR TWO FACILITY 81110AW, TAC GENERATORS.
3. IT IS THE PLANNER'S OPTION TO INCLUDE THIS FACILITY.

ARMY FACILITIES COMPONENTS SYSTEM U.S. ARMY ENGINEER DIVISION HUNTSVILLE, ALABAMA	DEPARTMENT OF THE ARMY OFFICE OF THE CHIEF OF ENGINEERS WASHINGTON, D.C.
125-500 MAN TROOP CAMP SITE PLAN AREA: 14.5 ACRES	INITIAL STANDARD 1 DEC 1994
DRAWING NUMBER NT100101 NT1001-NT1001	SHEET 1 OF 1

Glossary

Section I
Abbreviations

AFCS
Army facilities components system

ARTEP
Army Training and Evaluation Program

ASP
ammunition supply point

CTA
common table of allowances

GP
general purpose

MARS
Military Affiliate Radio System

MSR
main supply route

MTOE
modification table of organization and equipment

MWR
morale, welfare, and recreation

O&M
operations & maintenance

TF
Task Force

TOC
tactical operations center

U.S.
United States

USSOUTHCOM
United States Southern Command

Section II
Terms
This section contains no entries.

Section III
Special Abbreviations, Brevity Codes, and Acronyms
This publication uses the following abbreviations, brevity codes, and acronyms not contained in AR 310-50.

AOR
area of responsibility

BOM
bill of material

CPM
critical path method

CWS
construction work schedule

DCSENG
USARSO Deputy Chief of Staff for Engineers

DCSLOG
USARSO Deputy Chief of Staff for Logistics

DCSOPS
USARSO Deputy Chief of Staff for Operations

DFT
deployments for training

ERC
exercise related costs

LSA
logistics support area

MKT
mobile kitchen trailers

ROWPU
reverse osmosis water purification unit

SJA
USARSO Staff Judge Advocate